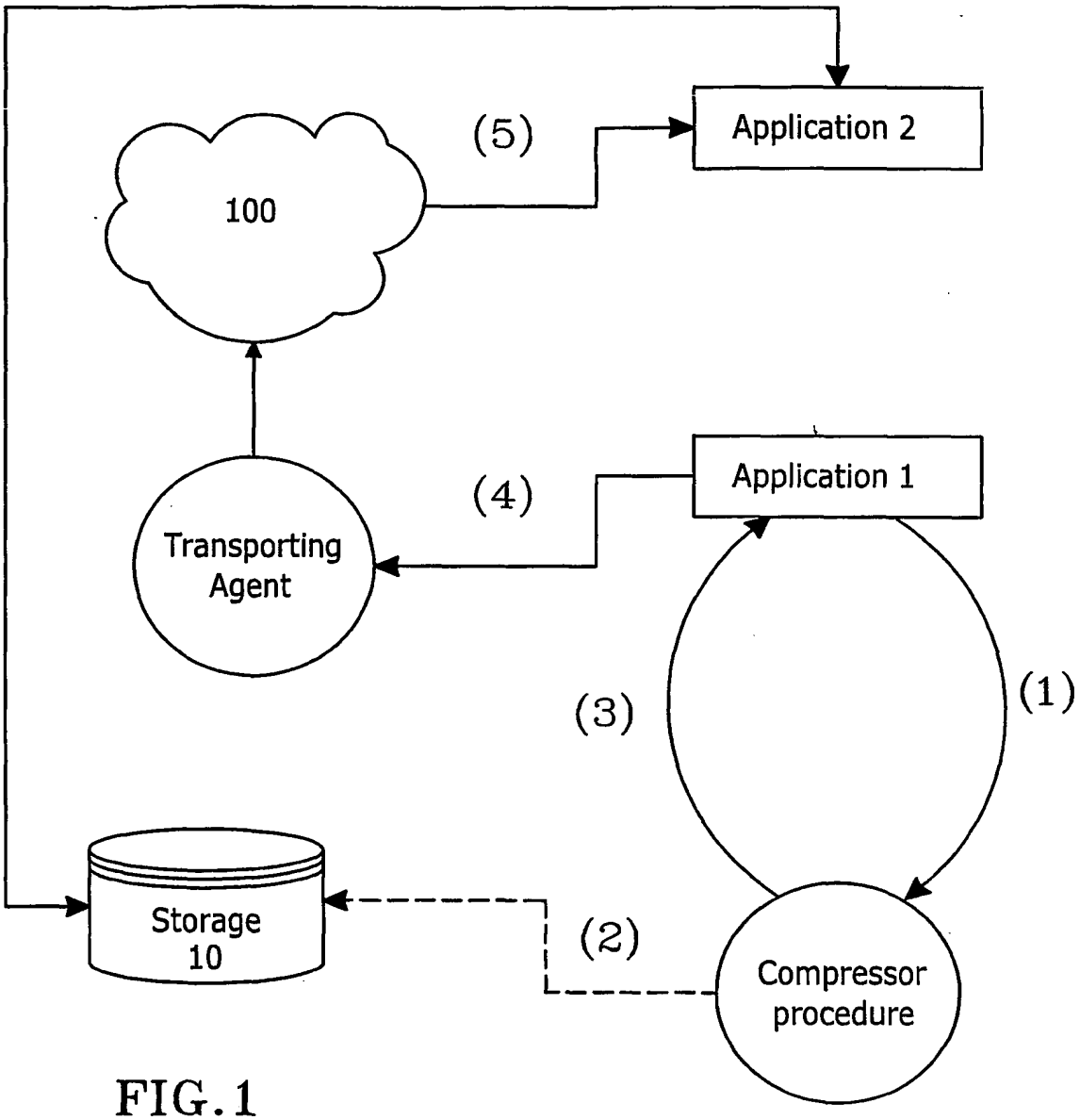

Application 2
(5)
100
Application 1
(4)
Transporting Agent
(3)
(1)
Storage 10
(2)
Compressor procedure

FIG.1

FIG.2

(i)
MARKUP DOCUMENT

```
<start>
   <vehicle ok="yes">
      <head>&label;</head>
      <doors>locked</doors>
      <speed>95</speed>
   <vehicle>
</start>
```

(ii)
DTD

```
<!ENTITY label "Motor Vehicle">
<!ELEMENT start (vehicle)>
<!ELEMENT vehicle (head, doors, speed)>
<!ATTLIST vehicle ok (yes | no) #IMPLIED>
<!ELEMENT doors (#PCDATA)>
<!ELEMENT speed (#PCDATA)>
```

(iii)
COMPRESSING KEY

```
<XMLKey>
<info>
   <keyID>123456789</keyID>
</info>
<item>
   <code>a</code>
   <name>start, vehicle, ok</name>
   <type>attribute</type>
   <format> string </format>
</item>
<item>
   <code>b</code>
   <name>start, vehicle, doors</name>
   <type>element</type>
   <format>string</format>
</item>
<item>
   <code>c</code>
   <name>start, vehicle, speed</name>
   <type>element</type>
   <format>integer</format>
</item>
<item>
   <code>d</code>
   <name>start, vehicle, head</name>
   <type>reference</type>
   <format>string</format>
</item>
```

(iv)
COMPRESSED RESULT

"a<yes>b<locked>c<95>d<Motor Vehicle>"

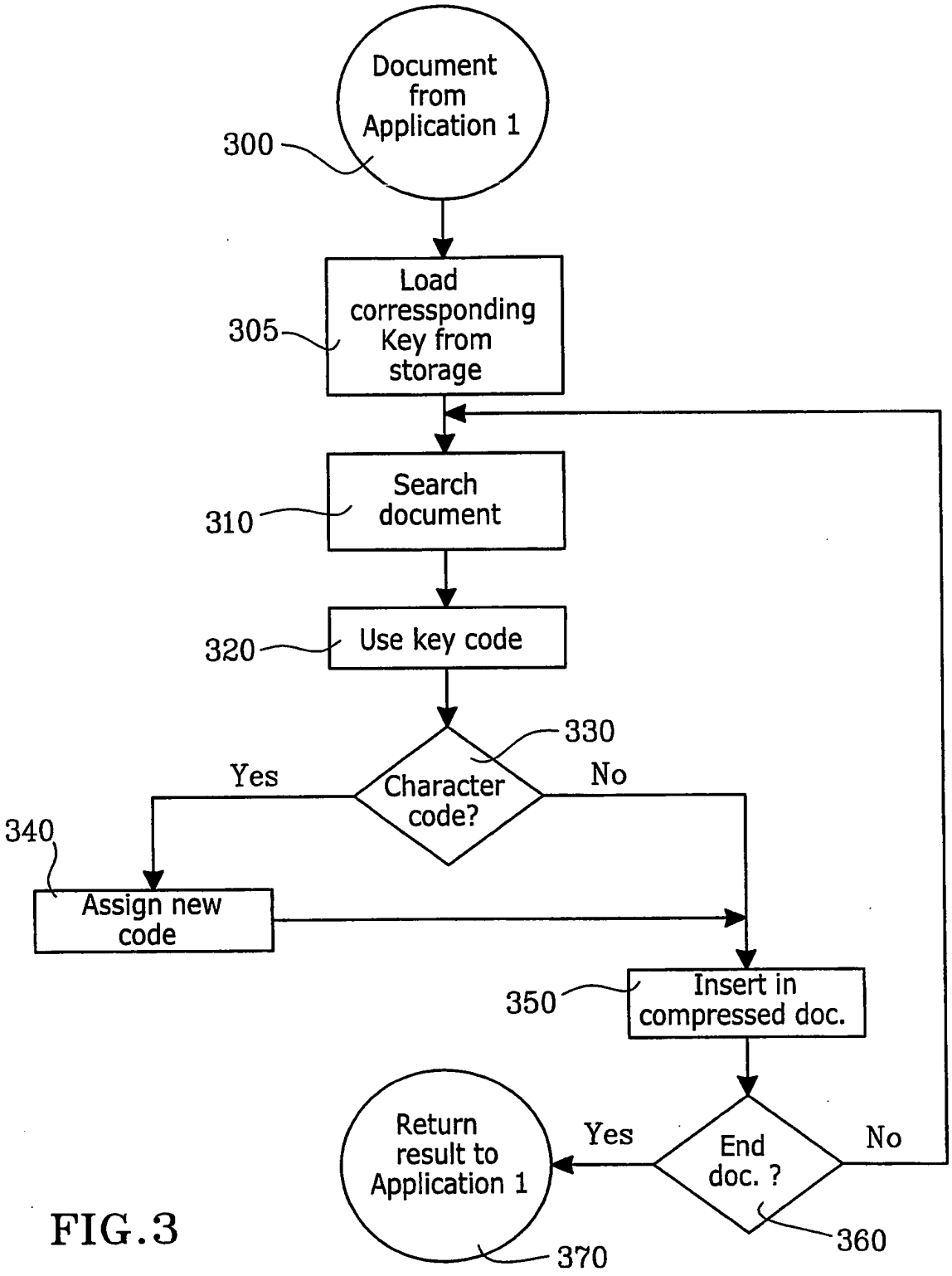

Document from Application 1
300
Load corressponding Key from storage
305
Search document
310
Use key code
320
330
Character code?
Yes
No
340
Assign new code
350
Insert in compressed doc.
End doc. ?
Yes
No
360
Return result to Application 1
370

FIG.3

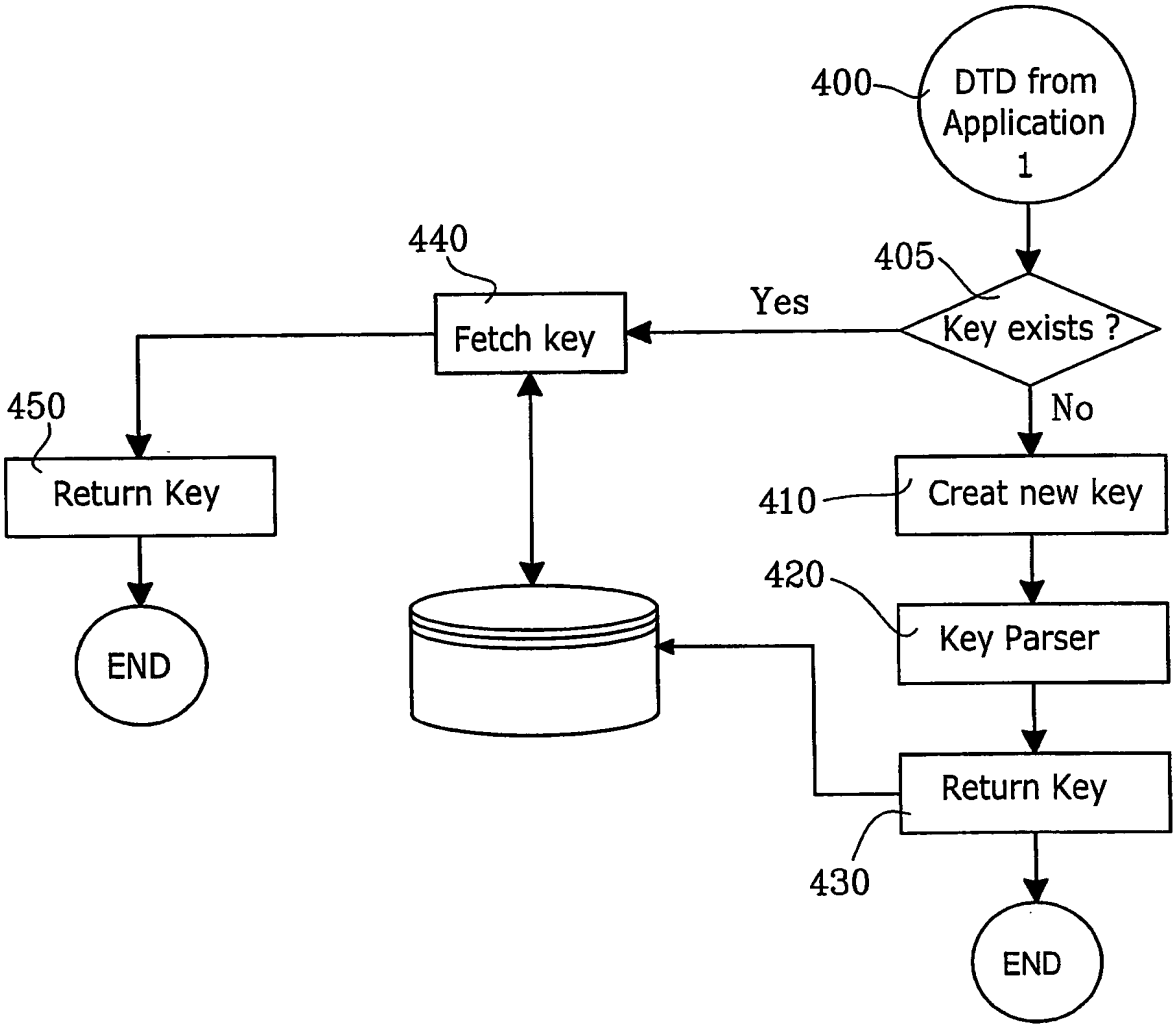
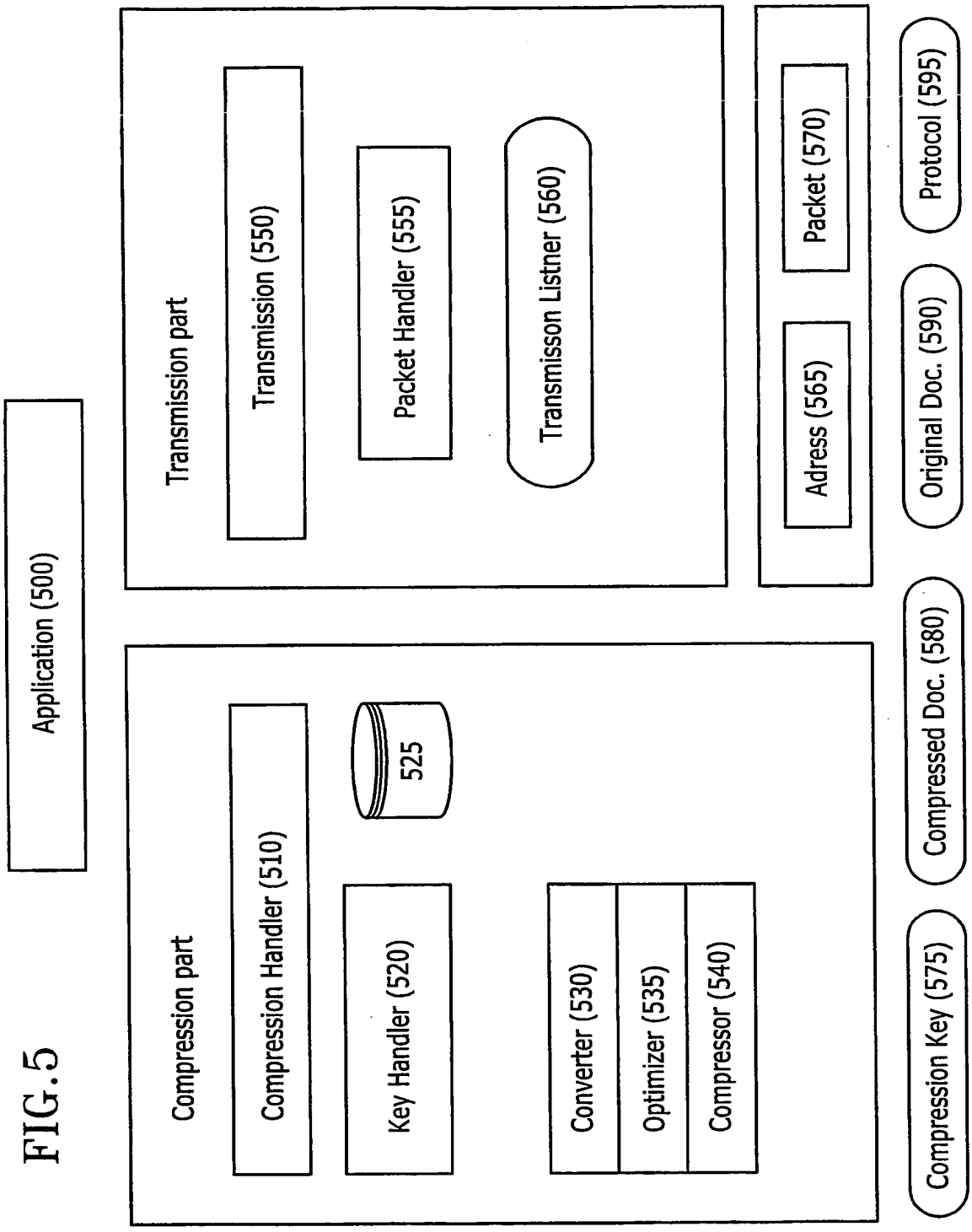

400
DTD from Application 1
405
Key exists ?
Yes
No
440
Fetch key
450
Return Key
END
410
Creat new key
420
Key Parser
Return Key
430
END

FIG.4

FIG.5


Application (500)
Transmission part
Transmission (550)
Packet Handler (555)
Transmisson Listner (560)
Adress (565)
Packet (570)
Protocol (595)
Original Doc. (590)
Compression part
Compression Handler (510)
525
Key Handler (520)
Converter (530)
Optimizer (535)
Compressor (540)
Compressed Doc. (580)
Compression Key (575)

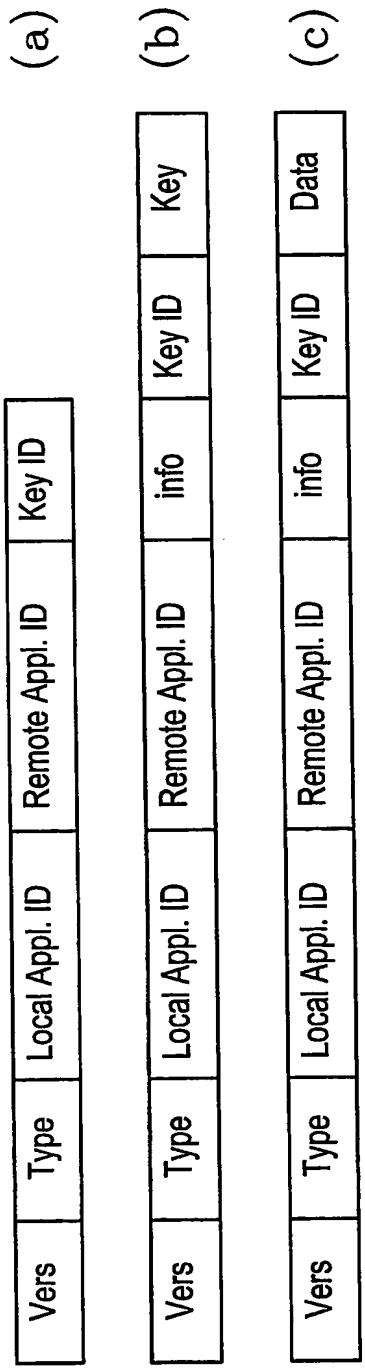

(a)
Vers
Type
Local Appl. ID
Remote Appl. ID
Key ID
(b)
Vers
Type
Local Appl. ID
Remote Appl. ID
info
Key ID
Key
(c)
Vers
Type
Local Appl. ID
Remote Appl. ID
info
Key ID
Data

FIG.6

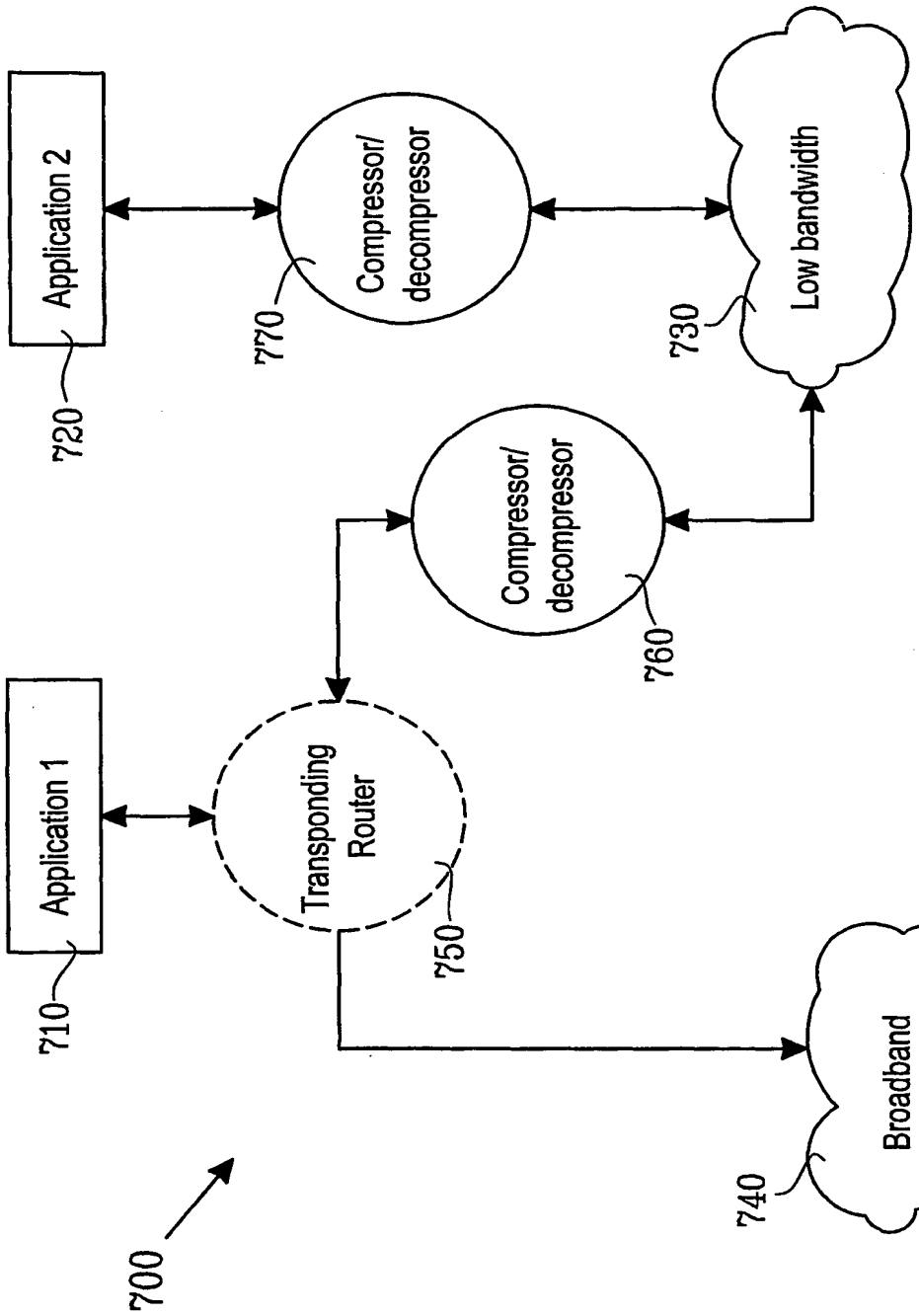

700
Application 1
710
Application 2
720
Transponding Router
750
Compressor/ decompressor
760
Compressor/ decompressor
770
Broadband
740
Low bandwidth
730

FIG.7